

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently Amended) A lens array unit comprising:

a first lens array provided with a plurality of first convex lenses and a first transparent holder formed integral with the first lenses, each of the first lenses having first and second lens surfaces, each of the first lens surfaces being convex and having a predetermined apex height;

a second lens array provided with a plurality of second convex lenses and a second transparent holder formed integral with the second lenses, each of the second lenses having third and fourth lens surfaces, the second lens array being separate from the first lens array and attached to the first lens array so that the third lens surfaces face the second lens surfaces; and

a light shield mounted on the first lens array and provided with a plurality of through-holes facing the first lens surfaces, the light shield having a thickness greater than the apex height of each said first lens surface;

wherein the light shield is located on a side of the first lens array located away from the second lens array.

2. (Currently Amended) The lens array unit according to claim 1, wherein ~~the first and second lens arrays cooperate to form a non-inverted and non-magnified image of an object.~~ the first and second lens surfaces of the first lens array are convex in opposite directions, the third and fourth lens surfaces of the second lens array being also convex in opposite directions.

3. (Original) The lens array unit according to claim 1, wherein each of the through-holes has a dark-colored inner wall surface.

4. (Original) The lens array unit according to claim 3, wherein the light shield is made of a dark-colored resin material.

5. (Original) The lens array unit according to claim 1, wherein the light shield and the first lens array are provided with engaging means including a recess and a projection fitted into the recess.

6. (Original) The lens array unit according to claim 1, wherein the light shield is attached to the first lens array in a stretched state.

7. (Original) The lens array unit according to claim 1, wherein the light shield includes a plurality of segments connected to extend in a predetermined direction.

8. (Original) The lens array unit according to claim 7, wherein adjacent ones of the segments overlap with each other in a thickness direction perpendicular to said predetermined direction.

9. (Original) The lens array unit according to claim 7, wherein the segments are equal in configuration and size to each other.

10. (Original) The lens array unit according to claim 1, wherein each of the first lens surfaces is convex and at least partially projects into a relevant one of the through-holes of the light shield.

11. (Original) The lens array unit according to claim 1, wherein the first lens surfaces are diametrically greater than the through-holes of the light shield.

12. (Currently Amended) A lens array unit comprising:

a lens array provided with a plurality of lenses and a transparent holder formed integral with the lenses, each of the lenses having a first convex lens surface for incidence of light and a second lens surface, each of the first convex lens surfaces having a predetermined apex height;
and

a light shield formed with a plurality of through-holes facing the first lens surfaces, the light shield having a thickness greater than the apex height of each said first lens surface;

wherein the light shield is arranged on a side of the lens array where the first convex lens surfaces are formed.

13. (Currently Amended) A lens array unit comprising:

a first lens array provided with a plurality of first convex lenses arranged in a line, each of the first lenses having first and second lens surfaces, the first lens array including a flat surface from which the first lens surfaces project, the first lens array also including grooves extending from the flat surface toward the second lens surfaces for optically separating the first lenses from each other;

a second lens array provided with a plurality of second convex lenses arranged in a line, each of the second lenses having third and fourth lens surfaces, at least either one of the third and fourth lens surfaces being convex, the second lens array being separate from the first lens array and attached to the first lens array so that the third lens surfaces face the second lens surfaces;
and

first light shielding means covering the flat surface of the first lens array and extending into each of the grooves; and

second light shielding means for partially covering said at least either one of the third and the fourth lens surfaces of each second lens which is convex.

14. (Currently Amended) The lens array unit according to claim 13, wherein the second light shielding means comprises a dark-colored layer formed directly on said at least ~~either~~ one of the third and the fourth lens surfaces of each second lens.

15. (Currently Amended) The lens array unit according to claim 13, wherein ~~the first lens array is formed with grooves for optically separating the first lenses from each other, each of the~~

~~grooves being provided with a dark-colored light shielding member.~~ the first shielding means is dark-colored.

16. (Original) The lens array unit according to claim 13, wherein each of the first and the second lens arrays is provided with a holder formed integral with the convex lenses.

17. (Deleted)

18. (Deleted)

19. (Currently Amended) A lens array comprising:
a plurality of lenses arranged in a line and each having a convex lens surface; ~~and~~
a transparent holder formed integral with the lenses and having a flat surface from which the convex lens surface project, the holder also including grooves extending from the flat surface into a wall thickness of the holder for optically separating the lenses from each other; and
light shielding means [~~for partially covering the convex lens surface,~~] covering the flat surface of the holder and extending into each of the grooves.

~~wherein the convex lens surface includes peripheral portions spaced from each other along said line, the light shielding means covering the peripheral portions.~~

20. (Deleted)